

Date: Thursday, 10/19/2006 9:33:12 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : FWD X-TUBE EXTENDED HEIGHT GEAR (-011)
Job Number : 29063	
Estimate Number : 10007	
P.O. Number : N/A	Part Number : D205596101
This Issue : 10/19/2006 S.O. No. : N/A	Drawing Number : D205-596-101 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : LANDING GEAR	Drawing Revision : A
Previous Run : 26840	Material : N/A
Written By : <u>[Signature]</u>	Due Date : 11/15/2006 Qty: 1 Um: Each
Checked & Approved By : <u>[Signature]</u> 06 10 19	
Comment : Est Rev C Removed Bending 05-10-25 JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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**Comment:** DOCUMENT CONTROL

Photocopy D205-594 bluefile & type labels per PPP D205-596-101 CHG001

[Signature] 06.10.23 ①

2.0	D2889	FWD Crosstube
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**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

FWD Crosstube

Pick:

Qty Part number Description Batch

1 D2889 Fwd Crosstube

29483

3.0	BENDING	BENDING MACHINE
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**Comment:** BENDING MACHINE

Bend as per Dwg D2889

see w/c

↑

EL 7-3-28

4.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
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**Comment:** LANDING GEAR RESOURCE 1

Mark 31.53" for cutting from tangential line in the straight section from D2889 as per Dwg wall template.

EL 7-6-28

5.0	QC6	DIMENSIONAL CHECK
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**Comment:** DIMENSIONAL CHECK

Conformity check and sign off by engineering.

[Signature] 06.21 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 10/19/2006 9:33:12 AM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FWD X-TUBE EXTENDED HEIGHT GEAR (-011)

Job Number: 29063

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Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Cut as per Dwg D205-596-101

2-Deburr & Inspect for surface damage. Polish cut surface. Scribe part # and end of tube.

Batch # on one

DP 7-6-24

P70

Job 7-6-25

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat per QSI 005 4.1

Job 7-6-25

8.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

En 07/06/25

9.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Prime inside and outside with Immron per QSI 005 4.2

RT 07-06-26

10.0

QC14

Inspect Spray Paint



Comment: Inspect Spray Paint

ml 07 06 27

(1)

11.0

D2856600

Abrasion Strip



Comment: Qty.: 0.7090 f(s)/Unit Total : 0.7090 f(s)

Abrasion Strip

Pick:

Qty Part number Description Batch

2 D2856-600-851 Abrasion Strip

26650

RT 07-06-28

12.0

D28931

Support



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Support

Pick:

Qty Part number Description Batch

2 D2893-1 Support





29524

RT 07-06-28

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQAI ☒ Date: 07/06/28
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07-06-28	6.0	Tube was over bent. See Dim sheet.	 06/10/42	Tube is acceptable. Cut to height as per attached dimension sheet.	 26-24	En 07/06/28	 06/10/42	 07-06-21

NOTE: Date & initial all entries

Date: Thursday, 10/19/2006 9:33:12 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FWD X-TUBE EXTENDED HEIGHT GEAR (-011)

Job Number: 29063

Part Number: D205596101

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

MS2192024

Clamp(per MIL-DTL-8783C)



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part number

Description Batch

4 MS21920-24

Clamp

101810

BT 07-06-28

14.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Install Abrasion strips per QSI 035 position using DT8582. Install supports and clamps per Dwg D205-596-101. Torque clamps to 80-100 in lb. Seal edges of support using Sikaflex

BT 07 06-28

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

16.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D205-596-101

Location:

17.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



W 07-06-28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

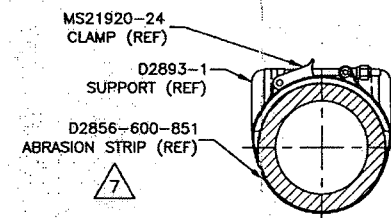
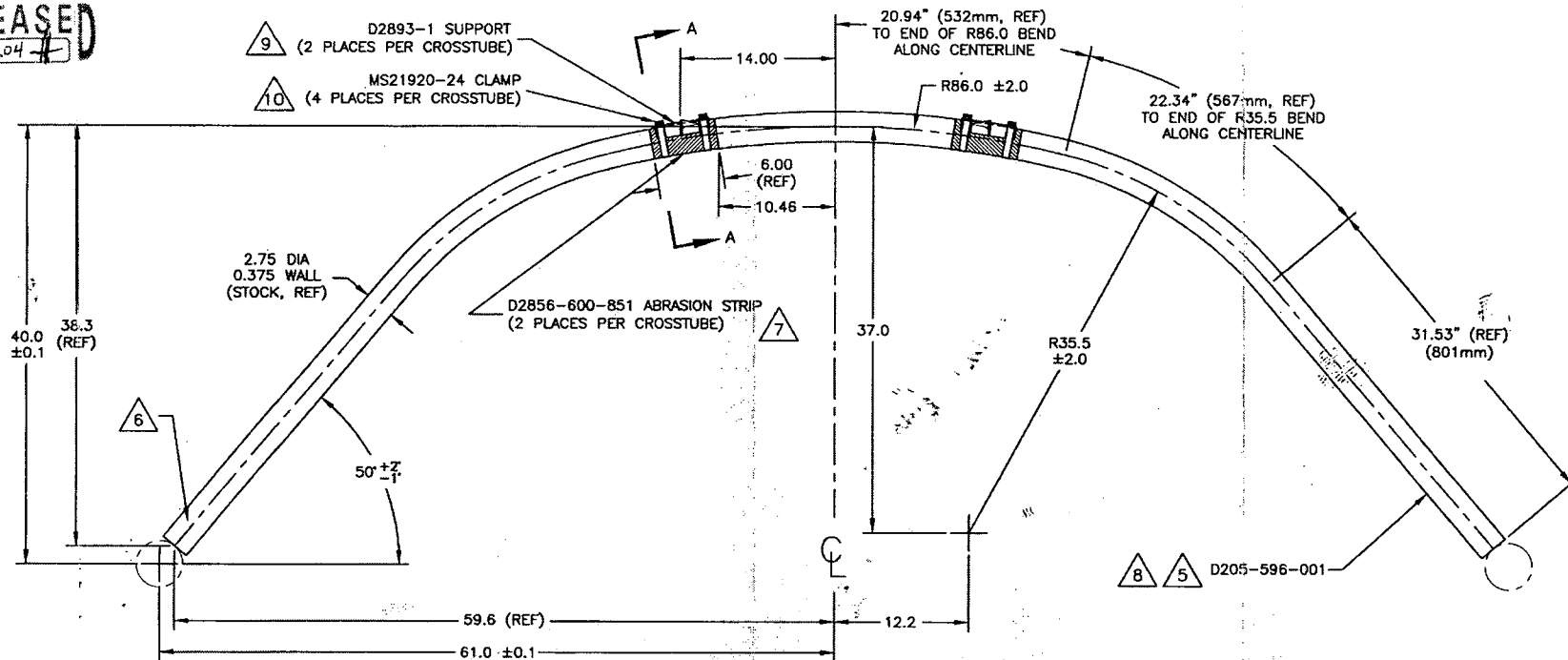
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

RELEASED
02.06.04



GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) MATERIAL: MANUFACTURE FROM D6005-180
FINISHED LENGTH = 149.60
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) BEND PROGRESSIVELY WITH A MINIMUM OF 3 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 6) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS
- 7) INSTALL D2856-600-851 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D2893-1 SUPPORT, PER QSI 035
- 8) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005\"
- 9) SEAL EDGES OF SUPPORTS USING SIKAFLEX-241/-291 SEALANT (OPTIONAL)
- 10) TORQUE CLAMPS 80 TO 100 IN-LB

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A	02.05.27	NEW ISSUE
DESIGN	APPROVED	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DART AEROSPACE LTD.
DATE	02.05.27	XTUBE ASS'Y (HI-HI FWD)

SHOP COPY
RETURN TO
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 23063

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

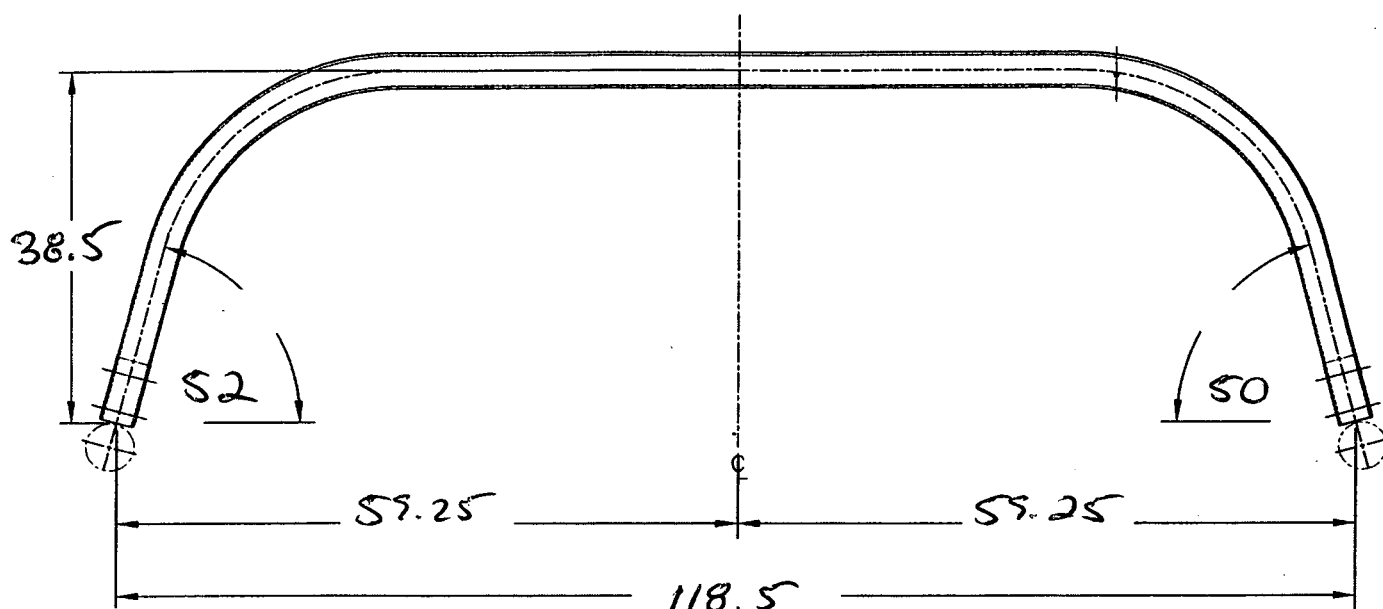
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DART AEROSPACE LTD		Work Order:	29063
Description: Crosstube High-High Fwd		Part Number:	D205-596-101
Inspection Dwg: D205-596-101 Rev: A		Page 1 of 1	

Required Dimension	Min	Max
Height	38.2	38.4
1/2 Span	59.5	59.7
Angle	49	52
Total Span	119.0	119.4



Comments
Spans had to be opened up by cutting the tube at 38.5" high. This is acceptable per David Shepherd.

QC15 Inspection	201012
Date	07.06.21

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	

Jason Murdoch

From: David Shepherd [dshepherd@dartaero.com]
Sent: Thursday, June 21, 2007 11:29 AM
To: 'Jason Murdoch'
Cc: 'L Lacelle'
Subject: FW: drawings for NCR on x-tube
Importance: High
Attachments: Drawings.jpg

D205-596-101 B29063 is acceptable.

David

From: Jason Murdoch [mailto:jmurdoch@dartaero.com]
Sent: Thursday, June 21, 2007 6:36 AM
To: 'David Shepherd'
Cc: 'L Lacelle'
Subject: drawings for NCR on x-tube
Importance: High

Good morning Dave. Here are some dims on an over bent tube. I know this is a fwd tube, but is there any way this can be good if we up the height? It is still over bent at 38.5".

jmurdoch@dartaero.com
Q.C. COORDINATOR

No virus found in this incoming message.
Checked by AVG Free Edition.
Version: 7.5.472 / Virus Database: 269.9.1/857 - Release Date: 6/20/2007 2:18 PM

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6/21/2007